EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Section 1. Registration Information**

#### Source Identification

Facility Name: Abbott Nutrition Division, Casa Grande

Parent Company #1 Name: Abbott Laboratories, Inc.

Parent Company #2 Name:

#### Submission and Acceptance

Submission Type: Re-submission

Subsequent RMP Submission Reason: Voluntary update (not described by any of the above

reasons)

Description:

Receipt Date: 12-Apr-2013
Postmark Date: 12-Apr-2013
Next Due Date: 12-Apr-2018
Completeness Check Date: 12-Apr-2013
Complete RMP: Yes

De-Registration / Closed Reason:

De-Registration / Closed Reason Other Text:

De-Registered / Closed Date:

De-Registered / Closed Effective Date:

Certification Received: Yes

# **Facility Identification**

EPA Facility Identifier: 1000 0013 2215
Other EPA Systems Facility ID: 85222RSSLB1250

#### **Dun and Bradstreet Numbers (DUNS)**

Facility DUNS: 121457485
Parent Company #1 DUNS: 1307602

Parent Company #2 DUNS:

## **Facility Location Address**

Street 1: 1250 West Maricopa Highway

Street 2:

City: Casa Grande
State: ARIZONA
ZIP: 85193

ZIP4:

County: PINAL

### Facility Latitude and Longitude

Latitude (decimal): 32.888111

Longitude (decimal): -111.786139

Lat/Long Method: GPS - Unspecified

Lat/Long Description: Plant Entrance (General)

Horizontal Accuracy Measure: 5

Horizontal Reference Datum Name: World Geodetic System of 1984

Source Map Scale Number:

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

Owner or Operator

Operator Name: Abbott Laboratories, Inc.

Operator Phone: (520) 421-6600

Mailing Address

Operator Street 1: 1250 West Maricopa Highway

Operator Street 2:

Operator City: Casa Grande
Operator State: ARIZONA
Operator ZIP: 85193

Operator ZIP4:

Operator Foreign State or Province:

Operator Foreign ZIP: Operator Foreign Country:

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person: Enrique Porras Serrano

RMP Title of Person or Position: Plant Manager

RMP E-mail Address: enrique.porras@abbott.com

**Emergency Contact** 

Emergency Contact Name: Vella Strickland

Emergency Contact Title: Environmental, Health, & Safety Mgr

Emergency Contact Phone: (520) 421-6294 Emergency Contact 24-Hour Phone: (520) 421-6600

Emergency Contact Ext. or PIN:

Emergency Contact E-mail Address: vella.strickland@abbott.com

Other Points of Contact

Facility or Parent Company E-mail Address:

Facility Public Contact Phone:

Facility or Parent Company WWW Homepage

Address:

www.abbott.com

Local Emergency Planning Committee

LEPC: Pinal County LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site: 450

FTE Claimed as CBI:

Covered By

OSHA PSM: Yes EPCRA 302: Yes

CAA Title V:

EPA Facility Identifier: 1000 0013 2215

Air Operating Permit ID:

#### **OSHA** Ranking

OSHA Star or Merit Ranking:

# Last Safety Inspection

Last Safety Inspection (By an External Agency)

Date:

25-Feb-2013

Last Safety Inspection Performed By an External

Agency:

**EPA** 

#### **Predictive Filing**

Did this RMP involve predictive filing?:

# Preparer Information

Preparer Name:

Preparer Phone:

Preparer Street 1:

Preparer Street 2:

Preparer City:

Preparer State:

Preparer ZIP:

Preparer ZIP4:

Preparer Foreign State:

Preparer Foreign Country:

Preparer Foreign ZIP:

## Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided:

Unsanitized RMP Provided:

#### Reportable Accidents

Reportable Accidents:

See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

Plan Sequence Number: 1000033802

#### **Process Chemicals**

Process ID: 1000041293

Description: Refrigeration System

Process Chemical ID: 1000049542

Program Level: Program Level 3 process
Chemical Name: Ammonia (anhydrous)

CAS Number: 7664-41-7

Quantity (lbs): 13500

CBI Claimed:

Flammable/Toxic: Toxic

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Process NAICS**

Process ID: 1000041293 Process NAICS ID: 1000041698

Program Level: Program Level 3 process

NAICS Code: 311514

Dry, Condensed, and Evaporated Dairy Product Manufacturing NAICS Description:

Facility Name: Abbott Nutrition Division, Casa Grande Plan Sequence Number: 1000033802

EPA Facility Identifier: 1000 0013 2215

# **Section 2. Toxics: Worst Case**

Toxic Worst ID: 1000034041

Percent Weight:

Gas liquified by pressure Physical State:

Model Used: Phast Release Duration (mins): 10 Wind Speed (m/sec): 1.5 Atmospheric Stability Class: F Topography: Rural

## Passive Mitigation Considered

Dikes: Enclosures: Berms: Drains: Sumps:

Other Type:

Facility Name: Abbott Nutrition Division, Casa Grande

EPA Facility Identifier: 1000 0013 2215

Plan Sequence Number: 1000033802

# **Section 3. Toxics: Alternative Release**

Toxic Alter ID: 1000035993

Percent Weight:

Physical State: Gas liquified by pressure

Model Used:PhastWind Speed (m/sec):3.0Atmospheric Stability Class:DTopography:Rural

**Passive Mitigation Considered** 

Dikes: Enclosures: Berms: Drains: Sumps: Other Type:

**Active Mitigation Considered** 

Sprinkler System:
Deluge System:
Water Curtain:
Neutralization:

Excess Flow Valve: Yes

Flares: Scrubbers:

Emergency Shutdown: Yes

Other Type: Ammonia Spill Kit

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Section 4. Flammables: Worst Case**

No records found.

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Section 5. Flammables: Alternative Release**

No records found.

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Section 6. Accident History**

Accident History ID: 1000028020

Date of Accident: 05-Aug-2009
Time Accident Began (HHMM): 0604
NAICS Code of Process Involved: 311514

NAICS Description: Dry, Condensed, and Evaporated Dairy Product

Manufacturing

Yes

Release Duration: 008 Hours 00 Minutes

#### Release Event

Gas Release:

Liquid Spill/Evaporation:

Fire: Explosion:

Uncontrolled/Runaway Reaction:

#### Release Source

Storage Vessel:

Piping:

Process Vessel: Transfer Hose:

Valve: Yes

Pump: Joint:

Other Release Source:

#### Weather Conditions at the Time of Event

Wind Speed: 5.0
Units: miles/h
Direction: S
Temperature: 95
Atmospheric Stability Class: B

Precipitation Present:

**Unknown Weather Conditions:** 

# On-Site Impacts

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

#### **Known Off-Site Impacts**

Deaths: 0
Hospitalization: 0
Other Medical Treatments: 0

Facility Name: Abbott Nutrition Division, Casa Grande EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802 0 Evacuated: 0 Sheltered-in-Place: 0 Off-Site Property Damage (\$): **Environmental Damage** Fish or Animal Kills: Tree, Lawn, Shrub, or Crop Damage: Water Contamination: Soil Contamination: Other Environmental Damage: None **Initiating Event** Initiating Event: **Equipment Failure Contributing Factors** Equipment Failure: Yes Human Error: Improper Procedures: Overpressurization: **Upset Condition:** By-Pass Condition: Maintenance Activity/Inactivity: Process Design Failure: Unsuitable Equipment: **Unusual Weather Condition:** Management Error: Other Contributing Factor: Off-Site Responders Notified Off-Site Responders Notified: Notified Only Changes Introduced as a Result of the Accident Improved or Upgraded Equipment: Yes Revised Maintenance: Yes Revised Training: Yes **Revised Operating Procedures:** Yes New Process Controls: Yes New Mitigation Systems: Revised Emergency Response Plan: Yes **Changed Process:** Yes Reduced Inventory: None: Other Changes Introduced: **Confidential Business Information** CBI Claimed:

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# Chemicals in Accident History

Accident Chemical ID: 1000021830

Quantity Released (lbs): 1150

Percent Weight: 100.0
Chemical Name: Ammonia (anhydrous)

CAS Number: 7664-41-7 Flammable/Toxic: Toxic

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Section 7. Program Level 3**

# Description

Ammonia, used as a refrigerant in a sealed refrigeration system, is the only USEPA Risk Management Program (RMP) regulated chemical present at the facility. This section describes the prevention program for this system.

## Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID: 1000042533

Chemical Name: Ammonia (anhydrous)

Flammable/Toxic: Toxic CAS Number: 7664-41-7

Prevention Program Level 3 ID: 1000036024 NAICS Code: 311514

# Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

31-Aug-2012

# Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

07-Dec-2009

## The Technique Used

What If:

Checklist:

What If/Checklist:

HAZOP:

Failure Mode and Effects Analysis: Fault Tree Analysis:

Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting

from last PHA or PHA update):

31-Dec-2009

Yes

#### Major Hazards Identified

Toxic Release:

Yes

Fire:

Explosion:

Runaway Reaction: Polymerization:

Overpressurization: Yes Corrosion: Yes

Overfilling:

Contamination:
Equipment Failure:

Yes

Loss of Cooling, Heating, Electricity, Instrument Air:

Earthquake:

Facility Name: Abbott Nutrition Division, Casa Grande EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802 Floods (Flood Plain): Tornado: Hurricanes: Other Major Hazard Identified: **Process Controls in Use** Vents: Yes Relief Valves: Yes Check Valves: Yes Scrubbers: Flares: Manual Shutoffs: Yes Automatic Shutoffs: Yes Interlocks: Yes Alarms and Procedures: Yes Keyed Bypass: Yes Emergency Air Supply: **Emergency Power:** Backup Pump: Grounding Equipment: Yes Inhibitor Addition: Rupture Disks: **Excess Flow Device:** Yes Quench System: Yes Purge System: None: Other Process Control in Use: Mitigation Systems in Use Sprinkler System: Yes Dikes: Fire Walls: Yes Blast Walls: Deluge System: Water Curtain: Yes Enclosure: Yes Neutralization:

None:

Other Mitigation System in Use: Ammonia Spill Kits

# Monitoring/Detection Systems in Use

Process Area Detectors: Yes

Perimeter Monitors:

None:

Other Monitoring/Detection System in Use:

#### Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Change Process Parameters:

Installation of Process Controls:

EPA Facility Identifier: 1000 0013 2215

Installation of Process Detection Systems: Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None:

Other Changes Since Last PHA or PHA Update:

# **Review of Operating Procedures**

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):

31-Aug-2012

Yes

Plan Sequence Number: 1000033802

#### Training

Training Revision Date (The date of the most recent 07-Dec-2012 review or revision of training programs):

# The Type of Training Provided

Classroom:

On the Job:

Other Training: Computer Based Training

# The Type of Competency Testing Used

Written Tests:

Yes

**Oral Tests:** 

Demonstration:

Yes

Observation:

Other Type of Competency Testing Used:

#### Maintenance

Maintenance Procedures Revision Date (The date of 25-Sep-2009 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

31-Aug-2012

Equipment Tested (Equipment most recently inspected or tested):

Frick Compressor

#### Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

10-Nov-2009

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

15-Mar-2013

Plan Sequence Number: 1000033802 EPA Facility Identifier: 1000 0013 2215

### **Pre-Startup Review**

Pre-Startup Review Date (The date of the most

recent pre-startup review):

03-Dec-2009

### **Compliance Audits**

Compliance Audit Date (The date of the most recent 22-Feb-2011 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit): 29-Jul-2011

# Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

05-Aug-2009

31-Mar-2010

# **Employee Participation Plans**

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

15-Mar-2013

## Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 18-Jan-2013 recent review or revision of hot work permit procedures):

#### Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

18-Jan-2013

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

28-Oct-2012

#### **Confidential Business Information**

CBI Claimed:

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Section 8. Program Level 2**

Plan Sequence Number: 1000033802 EPA Facility Identifier: 1000 0013 2215

# Section 9. Emergency Response

# Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Yes

Facility Plan (Does facility have its own written emergency response plan?):

Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Yes

Healthcare (Does facility's ER plan include information on emergency health care?):

Yes

#### **Emergency Response Review**

Review Date (Date of most recent review or update 25-Sep-2012 of facility's ER plan):

#### **Emergency Response Training**

Training Date (Date of most recent review or update 22-Mar-2013 of facility's employees):

#### Local Agency

Agency Name (Name of local agency with which the Pinal County LEPC, Casa Grande Fire facility ER plan or response activities are coordinated):

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(520) 868-6415

## Subject to

OSHA Regulations at 29 CFR 1910.38: Yes OSHA Regulations at 29 CFR 1910.120: Yes Clean Water Regulations at 40 CFR 112: Yes RCRA Regulations at CFR 264, 265, and 279.52: Yes OPA 90 Regulations at 40 CFR 112, 33 CFR 154, Yes 49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws: Yes

Other (Specify):

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

# **Executive Summary**

a) Accidental Release Prevention & Emergency Response Policies

Abbott is a global healthcare company, and has a global environmental, health, and safety policy applicable to all operations. The policy requires that all operations maintain a safe and healthy workplace and environment and comply with all applicable laws designed to protect human health, safety and the environment.

b) Facility Description & Regulated Substances Handled

The Abbott Laboratories-Casa Grande Facility is located at 1250 West Maricopa Highway in Casa Grande, Arizona. The facility manufactures milk-based infant formulas and adult medical nutritional products. Ammonia, used as a refrigerant, is the only USEPA Risk Management Program (RMP) regulated chemical present at the facility. The ammonia refrigeration system is subject to both the Occupational Safety and Health Administration (OSHA) and the USEPA RMP Process Safety Management (PSM) regulatory programs.

The ammonia is contained within a refrigeration system that is used to cool raw materials and products in the facility. The ammonia refrigeration system is a sealed, closed-loop system that refrigerates water which is then pumped into the manufacturing area of the facility where it is used to cool tanks and other equipment. The ammonia never comes into contact with the cooling water. The ammonia refrigeration system employs state-of-the-art design and includes safety features, such as ammonia leak detectors and alarms.

c) General Accidental Release Prevention Program & Chemical-Specific Prevention Steps

The facility has an active safety and spill prevention program that incorporates the latest ammonia refrigeration system management technologies, including detailed operational procedures, preventive maintenance practices, and worker training. Emergency response procedures at the facility incorporate both internal (Abbott) and external (Casa Grande and Pinal County) resources and emergency response services. The ammonia refrigeration system workforce is highly trained and experienced in both managing the system and in responding to any contingency. The facility's Emergency Response Team (Abbott-ERT) is trained to OSHA's "Hazardous Materials Technician" level and is available 24-hours a day onsite. The ammonia refrigeration system operators are very familiar with the system, and are also trained ammonia incident emergency responders. Both the Abbott-ERT and the ammonia system operators are trained to use specialized ammonia incident response equipment to mitigate any accidental release of ammonia, and will immediately respond to any ammonia system emergency.

The ammonia refrigeration system has an active preventive maintenance program that inspects and maintains the equipment at regular intervals to prevent breakdown. A certified ammonia system contractor performs a complete inspection and preventive maintenance program on each of the ammonia system compressors annually. All ammonia refrigeration system controls, leak sensors, and alarms are included in the preventive maintenance program. The ammonia refrigeration system's pressure safety relief valves are replaced every 5-years, and are located throughout the ammonia refrigeration system to prevent the rupture of the containment system should abnormal pressures develop. Pressure safety relief valves are directed into a common exhaust pipeline that contains an ammonia detector and alarm that promptly alerts the facility of any abnormal ammonia refrigeration system events.

The ammonia refrigeration system undergoes formalized process hazard analyses and audits on a regular frequency to assure compliance with relevant process safety regulations. Process Hazard Analyses (PHA's) were conducted on the ammonia system in 1999, 2004, and 2009. Abbott is a concerned citizen of the community and we are proud of our safety and environmental compliance program. Our careful operation of the ammonia refrigeration system is an integral part of these efforts.

d) Five-year Accident History

The facility has had only one (1) accidental release of ammonia to the atmosphere within the past 5-years. This event occurred on August 5, 2009 and involved the release of approximately 1,150 pounds of ammonia to the atmosphere over an 8-hour period. No one offsite or onsite were injured from the release.

e) Emergency Response Program

EPA Facility Identifier: 1000 0013 2215 Plan Sequence Number: 1000033802

The ammonia refrigeration system is equipped with a leak detection system that alerts the facility of any ammonia leaks so that they can be promptly fixed. The facility maintains self-contained breathing apparatus for ammonia leak or adverse event response.

Access to the ammonia refrigeration system is controlled, and only trained and experienced operators or maintenance personnel are allowed access to the system.

Emergency response procedures at the facility incorporate both internal (Abbott) and external (Casa Grande and Pinal County) resources and emergency response services. The ammonia refrigeration system workforce is highly trained and experienced in both managing the system and in responding to any contingency. The Abbott-ERT is trained to OSHA's "Hazardous Materials Technician" level and is available 24-hours a day onsite. The ammonia refrigeration system operators are very familiar with the system, and are also trained ammonia incident emergency responders. Both the Abbott-ERT and the ammonia system operators are trained to use specialized ammonia incident response equipment to mitigate any accidental release of ammonia, and will immediately respond to any ammonia system emergency.

#### f) Planned Changes to Improve Safety

Abbott regularly examines its safety and chemical release prevention programs for improvement. Any identified improvements are implemented as soon as practical. No changes to these programs are planned at this time.